

Fairfax County mandates the collection of recyclables curbside for single-family houses and townhouses.

- *Recycling collection curbside at residences.* Fairfax County mandates the collection of recyclables curbside for single-family houses and townhouses. Currently (2004), 20 private haulers are licensed to provide residential trash and recycling collection in Fairfax County. In addition, approximately 41,000 homes (around 11 percent of households in the county) receive county-provided collection service. All trash haulers in the county provide recycling pickup along with refuse service.



Fairfax County has established uniform baseline recycling requirements. County code requires curbside collection of the following recyclables (at a minimum): newspaper, tri-color glass bottles and jars, and metal food and beverage cans (some private haulers provide additional recycling services). Single-family homes and townhouses are required to recycle all of the above; apartment buildings larger than 100 units are only required to recycle newspaper, and smaller apartment buildings do not have any required recyclables.

Fairfax County requires apartment or condominium communities with 100 or more units to recycle newspaper.

- *Centralized containers at multiunit complexes.* Recycling requirements for multiunit units (apartments and condominiums) are less stringent than the requirements for single-family houses and townhouses. Fairfax County requires apartment or condominium communities with 100 or more units to recycle newspaper. Smaller communities (less than 100 units) are not required to recycle any materials.



Multiunit communities store recyclables in centralized containers prior to collection by the waste hauler. Some haulers in the county provide collection of recyclables in addition to newspaper, including metals, glass, and plastics.

Fairfax County currently operates eight recycling drop-off-centers throughout the county.

- *Recycling DOCs.* Fairfax County currently (2004) operates eight DOCs where residents can take materials for recycling. They are located throughout the county and provide citizens with a convenient addition to curbside collection. For example, DOCs accept mixed paper (cardboard, “junk” mail, catalogs, and magazines), and plastics.



Fairfax County maintains facilities at the I-66 Transfer Station and I-95 Landfill Complex citizens' disposal areas that encourage citizens to recycle small and large appliances (such as refrigerators, stoves, washers, dryers, and air conditioners) and other scrap metal (lawn chairs, grills, metal framing, etc.). Recycling of white goods is free for county citizens, with the exception of items from which the staff has to remove Freon or a capacitor, which cost a dollar.

The I-66 Transfer Station and I-95 Landfill Complex citizens' disposal facilities also accept special wastes for recycling, including used oil, antifreeze, waste tires, and batteries. (The recycling of special wastes is detailed later in this chapter.)

Businesses in Fairfax County with over 200 employees or that produce more than 100 tons of solid waste annually must recycle their “principal recyclable material.”

- *At businesses.* Businesses and institutions in Fairfax County that employ over 200 people or produce more than 100 tons of solid waste annually must recycle their “principal recyclable material.” For most of the county businesses, the principal recyclable material is office paper. These businesses typically contract with haulers for the collection of recyclables from dumpsters at the business location. Currently (2004), 23 private haulers are licensed to provide businesses trash and recycling collection in Fairfax County. Some businesses provide for recycling of materials in addition to the “principal recyclable material.”



Smaller businesses in the county may take office paper, cardboard, aluminum cans, newspaper, or any other

acceptable recyclable material to a local DOC or arrange for commercial collection.

- *Collection at county agencies.* Fairfax County's County Agency Route (CAR) program is responsible for the collection of trash and recyclables from county agencies and a small number of organizations associated with county agencies.
- *Special collection events.* Fairfax County sponsors periodic collection events to collect special recyclables from residents. During a typical special collection event, the county may collect 20 tons of computers, 100 bicycles, 500 cell phones and 300 pairs of eyeglasses. The county often organizes these events, which are held in different locations throughout the county, with local nonprofit and community groups.
- *Metal recovery at the E/RRF.* The county collects and recycles significant volumes of both ferrous and nonferrous metals from the E/RRF. The recovered metals are separated after the combustion process and sold to scrap recyclers. Table 6-4 shows the quantities of ferrous and nonferrous metals recovered from the E/RRF from 1999 to 2003.

Table 6-4. Fairfax County E/RRF Metal Recovery Quantities (1999–2003), tons

| Year ^a | Ferrous | Nonferrous | Total |
|-------------------|---------|------------|--------|
| 1999 | 19,641 | 599 | 20,240 |
| 2000 | 24,857 | 599 | 25,456 |
| 2001 | 22,485 | 375 | 22,860 |
| 2002 | 20,765 | 447 | 21,212 |
| 2003 | 22,204 | 318 | 22,522 |

^a - Fiscal Year Data (July-June)

Material Recovery Facilities

Once collected, most county recyclables are transported to one of the three private MRFs operating in Fairfax County: the Capitol Fiber MRF in Springfield, the Fairfax Recycling MRF in Burke, and the Waste Management MRF in Merrifield:



The Capitol Fiber MRF currently accepts Fairfax County DOC recyclables and county collection route recyclables.

- *Capitol Fiber MRF* - The Capitol Fiber MRF, majority owned by the Washington Post, is currently under contract with Fairfax County for recyclables collected from its recycling DOCs and county collection routes. In addition, the facility accepts recyclables from businesses in Fairfax County, as well as recyclables from surrounding areas, such as Anne Arundel County, Prince William County, and the District of Columbia. The facility receives about half commercial and half residential/small commercial recyclables.

The Capitol Fiber MRF in 2003 managed roughly 7,000 tons per month (84,000 tons per year) of recyclables; between 5,500 and 5,800 tons per month (80 percent) originates from Fairfax County. The capacity of the MRF is currently 10,000 tons per month.

Materials accepted include mixed paper (i.e., newspaper, magazines, cardboard, and white paper), glass, aluminum and steel cans, and plastics (high density polyethylene (HDPE) and polyethylene terephthalate (PET)). The facility processes only mixed paper, which is sorted through manual and mechanical processes into white (office paper), brown (cardboard), and gray paper (ground wood, i.e., newspaper).



In December 2003, the facility added the ability to process residential commingled recyclables on-site rather than transporting them to a subcontractor.

Capitol Fiber receives most recyclables (90 percent) through contracts with collection companies; the remaining 10 percent consists of “walk-ins” by collection companies. Once processed, recyclable materials are baled and sold by the truckload. Sales are split evenly between domestic and foreign markets. Capitol Fiber sells almost 75 percent of materials through contracts; the remainder is sold on the open market.

The Fairfax Recycling MRF currently accepts commingled residential recyclables and commercial cardboard recyclables.

- *Fairfax Recycling MRF* - Fairfax Recycling (owned by Waste Management) accepts commingled recyclables from residential curbside collection and cardboard from commercial collection. Materials accepted include mixed paper, tri-color glass, aluminum and steel cans, and plastics (HDPE and PET). Commingled recyclables from residential collection represent 90 percent of materials

accepted; the remaining 10 percent is commercial cardboard.

In 2003, the facility managed approximately 9,000 tons of recyclables per month (110,000 tons per year), of which roughly 55 percent was from Fairfax County. When materials arrive, they are sorted using several processes. Paper products are deposited on a conveyor belt and pass by a screen, where heavier junk mail and magazines fall into a container underneath. The remaining cardboard and newspaper are then separated manually. Roughly two thirds of paper products are sold in the United States, the remainder sold internationally.



Commingled recyclables first go through a trommel screen to remove mixed broken glass, followed by a set of magnets to remove the steel cans. An air screen then separates plastic and aluminum materials. Finally, an eddy current removes the aluminum cans. Glass and plastics are sorted separately by hand.

The capacity of the MRF is currently 10,000 tons per month (120,000 tons per year). The facility is planning to add a second bailer to increase total capacity to approximately 15,000 tons per month (180,000 tons per year).

Fairfax Recycling sells most recyclables through contracts with manufacturers, which establish monthly delivery quantities. The remaining recyclables are sold on the open market.

The Waste Management MRF currently accepts commercial and residential mixed paper.

- *Waste Management MRF* - The Waste Management MRF accepts commercial mixed paper (cardboard, office paper, and newspaper), residential mixed paper (newspaper, paperboard, and magazines), high-grade office paper, commingled recyclables, scrap metal, and carpeting (Dupont Nylon #6 only). Waste Management contracts for recyclables with commercial and residential haulers. The facility also accepts recyclables on a spot basis.

Waste Management in 2003 managed roughly 4,500 tons of recyclables per month (54,000 tons per year), of which roughly 60 to 70 percent is from Fairfax County. The capacity of the MRF is 8,000 tons per month (96,000 tons per year).



The facility currently processes only paper. Commercial mixed paper is sorted mechanically with minimal manual sorting. Residential mixed paper and high-grade office paper loads are sorted manually on conveyor belts. Commingled recyclables, scrap metals, and carpeting are loaded into large tractor-trailers and transported to other facilities for sorting.

The facility bales sorted paper by type and grade. Waste Management sells the recyclable paper, primarily domestically (approximately 90 percent).

The total MRF capacity in Fairfax County is 399,000 tons per year (295,000 tons of paper and 104,000 tons of commingled recyclables).

Table 6-5 shows the quantities of recyclables (paper and commingled) managed in 2003 and existing capacity for the three MRFs in Fairfax County. The total MRF capacity in Fairfax County is 399,000 tons per year; the capacity for paper recyclables is 295,000 tons per year and for commingled recyclables is 104,000 tons per year.

Table 6-5. Fairfax County MRF Quantities and Capacities 2003, tons

| | Capitol Fiber | Fairfax Recycling | Waste Management | Total |
|-------------------------|---------------|-------------------|------------------|----------------|
| Paper | | | | |
| Current Quantity | 72,000 | 61,000 | 49,000 | 182,000 |
| Fairfax County Quantity | 61,800 | 43,000 | 32,000 | 136,800 |
| Capacity | 90,000 | 123,000 | 82,000 | 295,000 |
| Commingled | | | | |
| Current Quantity | 12,000 | 46,000 | 4,800 | 62,800 |
| Fairfax County Quantity | 6,000 | 19,000 | 3,100 | 28,100 |
| Capacity | 30,000 | 60,000 | 14,000 | 104,000 |

County Recycling Program Policy Administration

The county has created comprehensive recycling policies that are included in:

- planning and zoning required for new properties,
- regional recycling marketing plan for recyclables,